

SCREENPRO^{T.M.}

**For easy screen
development**

INVENTORY			
PART #	DESCRIPTION	COST	QUANTITY ON HAND
AB-1111	CAPACITOR	\$ 2.34	34 36 38 40 42 44
AB-2222	TRANSISTOR	*3.45 \$4.66	106 36 33
AB-3333	POWER SUPPLY CABLE	*3.90 \$6.99	36 38 40 42 44
AB-4444	WIDGET (SMALL)	*4.88	106 36 38 40 42 44 55
AB-5555	KEYED SWITCH	*2.38 \$2.61	106 36 38 40 42 44 25
AB-6666	POWER SUPPLY	*195.00 \$195.00	106 95
AB-7777	VARIABLE RESISTOR	*4.77	106 108 64 36 46 32
AB-8888	CLIP	*39.00 \$34.00	106 106 106 106 123 156
AB-9999	WIDGET (REG)	*10.99	34 106 106 106 106 106 156
AB-1234	TAPE REEL	\$5.00	506 306 306 306 343
AB-5731	CAPACITOR	*4.92 \$5.22	106 36 38 34
AB-5432	RESISTOR (10W)	*3.40 \$1.19	106 123

INV	DESCRIPTION	COST	QUANTITY	VALUE
AB-7777	VARIABLE RESISTOR	4.77	32	152.64
AB-5555	SWITCH, KEYED	2.61	25	65.25
AB-3333	CABLE, PWR SUPPLY	6.99	44	307.56
AB-1111	CAPACITOR	2.34	44	102.96
AB-6666	POWER SUPPLY	195.00	95	18,525.00
AB-4444	SMALL WIDGET	4.88	55	268.40
AB-5731	CAPACITOR	5.22	34	177.48
AB-2222	TRANSISTOR	4.66	33	153.78
AB-5432	10W RESISTOR	1.19	123	146.37
AB-8888	CLIP	34.00	1,234	41,956.00
AB-1234	TAPE REEL	5.00	343	1,715.00
AB-9999	WIDGET	10.99	156	1,714.44

**SCREENPRO will
change this**

To this

"A Commitment To Reality"

In the past, this would have required 100's of programming statements in a complex, difficult to modify program only a professional programmer could understand.

NOW, SCREENPRO™ allows REALITY® users (management, programmers, clerical personnel) to easily and quickly use the REALITY system to create a terminal input display that will prompt the operator, accept the data, and perform various operations including error checking.

With SCREENPRO, even complex changes in the data structure can easily be accommodated by changing just a few words or statements.

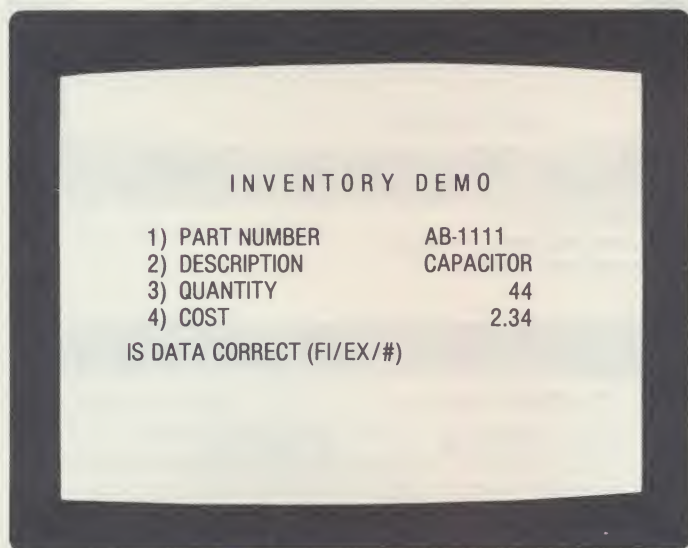
What is SCREENPRO?

SCREENPRO allows REALITY users to create and modify screen displays which can directly access the data base easily and quickly.

"Menus" tell the computer how to perform a variety of functions by entering a number and/or a short phrase. Then, a few simple cursor controls create the screen display. You can modify the display at any time, and add or delete data items.

SCREENPRO processes most data before it is inserted into the data base. It checks for errors and makes decisions. SCREENPRO is so powerful that it needs a program of *less* than 20 lines! SCREENPRO can be used with most other screen displays, even if they access different data bases simply by changing the file-names!

With SCREENPRO, screen display creation is so easy that a user can design the display without the help of a programmer. You are in complete control!



Use SCREENPRO like a pro

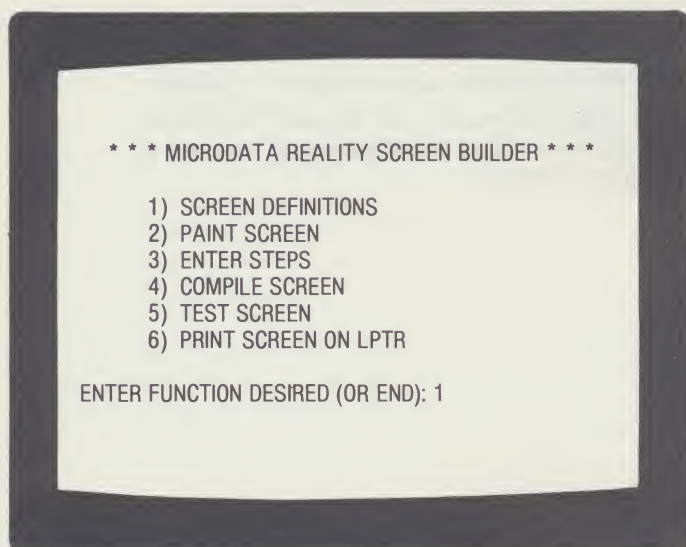
We use an inventory list as the data base in our example. You wish to design a terminal display so your clerical personnel can quickly and easily update the data base.

You invoke the Screen Builder function of SCREENPRO using a single word command, 'ENTER'. Inputting the file-name and item-id causes a 'menu' display to appear on the CRT. You create the screen display by going through the menu starting with number 1. Enter '1' to get to the Screen Definitions. Specify the name of the file to be updated, the INVENTORY file. The name is automatically filed when you enter 'FI.'

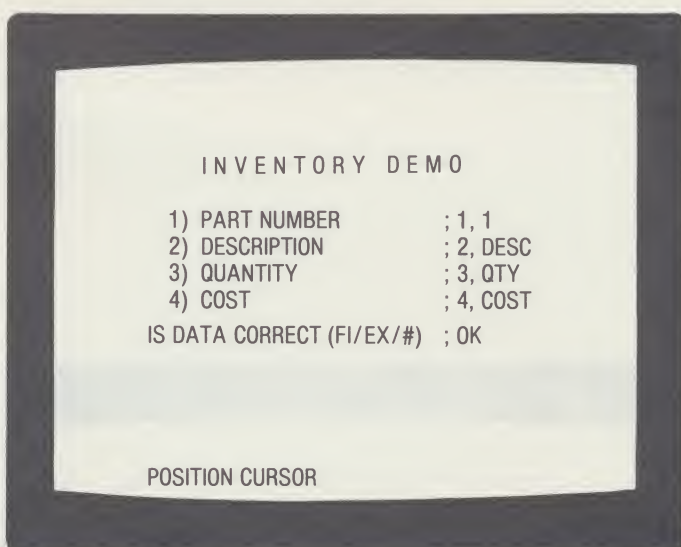
Entering '2' at the Builder menu accesses the Screen Painter, which, allows the user to dynamically format the screen display directly on the CRT. The display can easily be changed to fit your needs. Entire lines may be repositioned with the push of a key. If a word is left out, simply insert it in the correct spot. When the display looks exactly the way you want it, press 'F.' The Painter will automatically file the display information, along with predefined information about each data item.

The Steps Display (#3) shows the 35 parameters which control each data input. They consist of single statement definitions, and most are automatically defined by the Screen Painter.

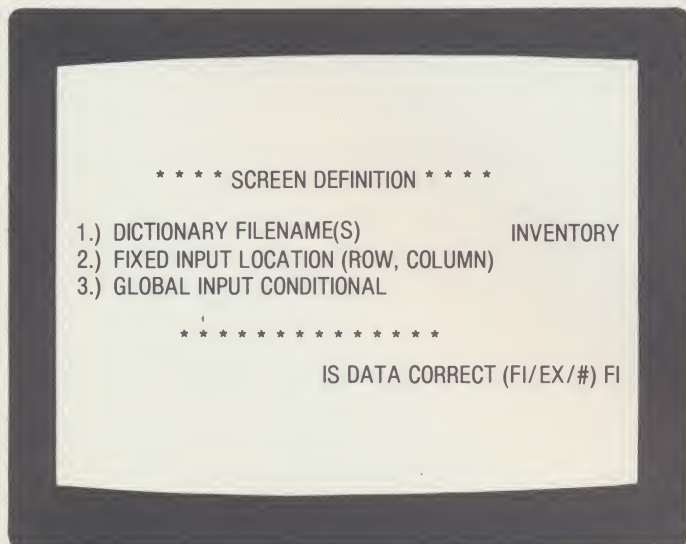
The information is compiled automatically by pressing '4' at the Builder menu. That's all. You have created a data entry screen.



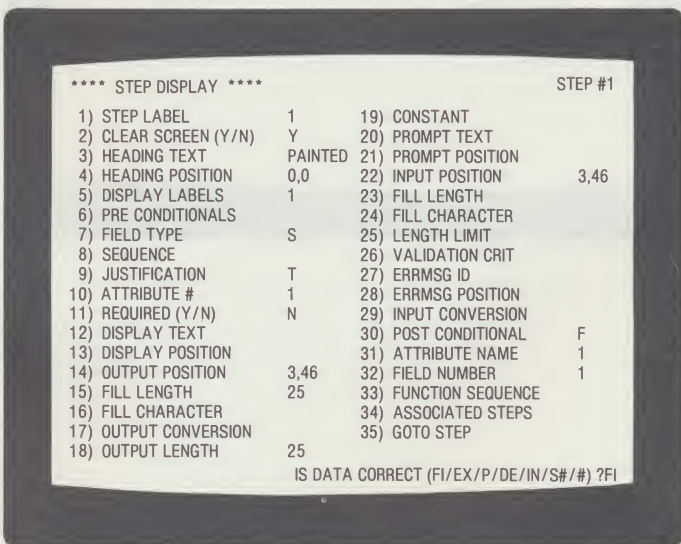
SCREEN BUILDER MENU.
By simply following this menu you can easily create almost any display You can imagine.



PAINTER DISPLAY.
What you type here will appear as your screen display.



SCREEN DEFINITIONS MENU.
A single change here can effect the entire screen display.



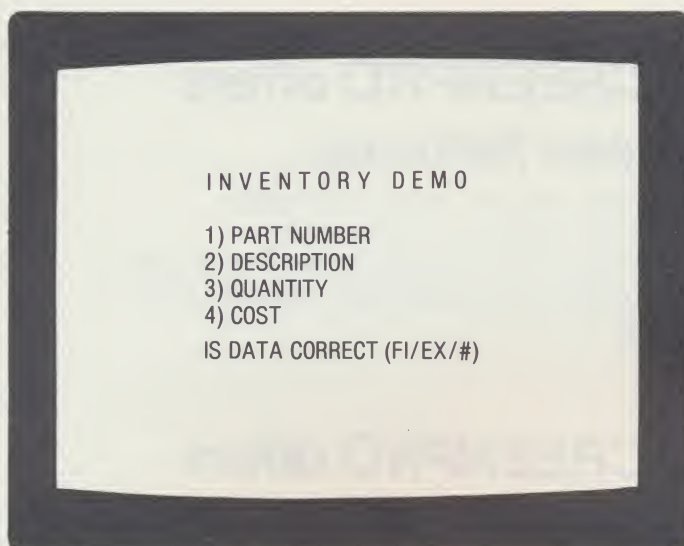
STEPS DISPLAY.
Allows you to control the processing of the information entered by your operator.

A short DATA/BASIC program is used to interface SCREENPRO with the data base. When executed, you will see an inventory display.

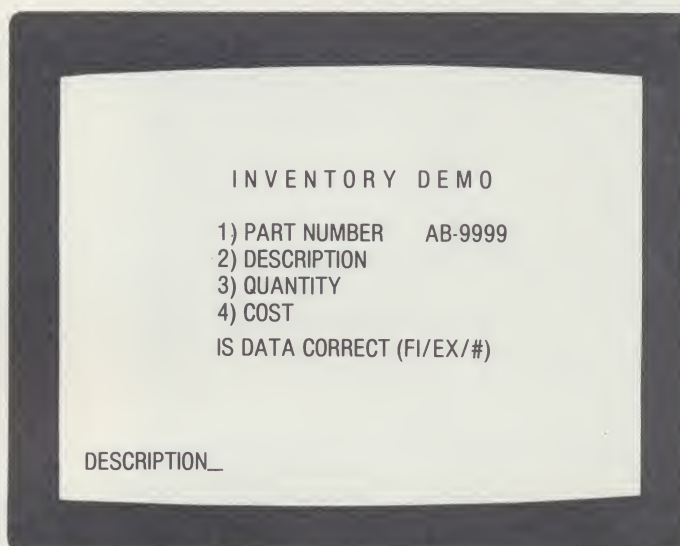
Try entering a part number. If the part exists, the part description, cost, and quantity will be retrieved from the data base and displayed on the screen. You may now update the information, or leave it alone and go on to the next part. If the part is not currently listed in your data base, SCREENPRO will prompt for the information and insert it for you.

By changing just one word, you have dramatically changed the screen display. All of the data is now prompted for at the same location on the screen.

You can now change the display any way you like. Change the order in which the information is prompted, even make the screen look similar to your own paper forms! All of your changes may be made through SCREENPRO, with no additional programming. You can decide how the screen should look, and can do it without spending your programmer's valuable time.

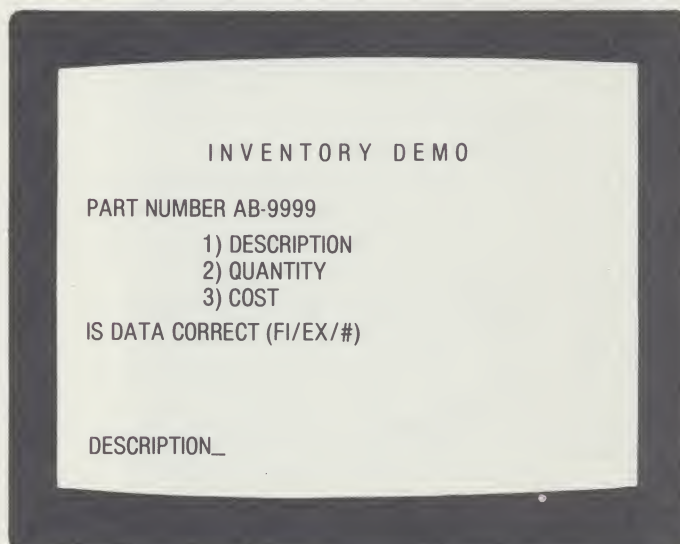


Your data entry screen display.



One entry to SCREENPRO changes your display to this!

After using the finished screen display, re-enter the Screen Builder and the Screen Definitions. Enter "22,0" at the second line, and file the change. Reenter the Screen Painter and refile the display (this is necessary because the Painter gets the information from the Screen Definitions when the display is filed). Recompile the display by entering '4' at the Builder. Now run the program again.



With SCREENPRO, the display was changed to this in less than five minutes!!

Here is the program you would need to do what you did with SCREENPRO:

```
* DEMO DATA ENTRY
OPEN ' ', 'INVENTORY' TO INVENTORY ELSE STOP
T = 'DESCRIPTION. QUANTITY. COST'
C = '1. 2. 3'
N = 3
CV = ' MDQ. MD2,
VC = '{ON}ON' - '2N:ON'
JS = 'L.R.R'
LS = '30. 10. 10'
PROMPT = ''
ERR. MSG = 'PATTERN MISMATCH'; ERR.FLG = 0
*
10 PRINT CHAR (12)
PRINT @ (21,4): 'INVENTORY DEMO'
PRINT @ (17, 8): '(1) PART NUMBER'
FOR I = 1 TO N
ROW = (I+4)*2
PRINT @ (17, ROW): '(: I+1: ) 'FIELD(T, ' ', I)
NEXT I
PRINT @ (17, 18): 'IS DATA CORRECT (FI/EX/#)'
*
20 PRINT @ (42,8): SPACE(20); @ (42,8):: INPUT PART
IF PART = '' THEN PRINT CHAR (12); STOP
IF PART MATCH 'AB"4N' THEN NULL ELSE
PRINT @ (0,22): ERR. MSG; ERR. FLG = 1
GOTO 20
END
READ RECORD FROM INVENTORY, PART ELSE RECORD = ''; GOTO 30
FOR I = 1 TO N
GOSUB 500
NEXT I
*
30 ONE = 1
31 FOR I = ONE TO N
AMC = FIELD (C, ' ', I)
ROW = (I+4)*2
IF ERR. FLG = 1 THEN
PRINT @ (0,22): SPACE(20)
ERR. FLG = 0
END
32 PRINT @ (42, ROW):: INPUT Z
IF Z = '' THEN GOTO 36
VALIDATIONS = VC<1, I>; IF VALIDATIONS # '' THEN
J = 0
LOOP
J = J + 1
VAL = VC<1, I, J>
UNTIL VAL = '' DO
IF Z MATCH VAL THEN GOTO 35
REPEAT
PRINT @ (0,22):ERR.MSG; ERR.FLG = 1
GOSUB 500
GOTO 32
END
*
35 CONV = FIELD (CV, ' ', I); IF CONV # '' THEN
Z = ICONV (Z, CONV)
END
RECORD<AMC>= Z
36 GOSUB 500
NEXT I
*
90 PRINT @ (42,18):: INPUT ANS
IF ANS = 'FI' THEN
WRITE RECORD ON INVENTORY, PART
GOTO 10
END
IF ANS = 'EX' THEN GOTO 10
IF ANS = 1 THEN GOTO 20
IF ANS >= 2 AND ANS <= N+1 THEN
ONE = ANS - 1
GOTO 31
END
GOTO 90
*
500 AMC = FIELD (C, ' ', I)
DATUM = RECORD<AMC>
CONV = FIELD (CV, ' ', I); IF CONV # '' THEN
DATUM = OCONV (DATUM, CONV)
END
JUST = FIELD (JS, ' ', I)
LENGTH = FIELD (LS, ' ', I)
SPEC = JUST: '#' : LENGTH
PRINT @ (42, (I+4)*2): DATUM SPEC
RETURN
END
```

BASIC program you will need if you do not have SCREENPRO. The shaded areas indicate the code replaced by SCREENPRO and its program.

Compare this with SCREENPRO'S program:

```
OPEN ' ', 'SCREENS' TO SF ELSE STOP
READ SCREEN FROM SF, '#DEMO' ELSE PRINT "SCREEN ITEM NOT ON FILE"; STOP
OPEN ' ', 'INVENTORY' TO INV ELSE STOP
10 RECORD = ""
INPUT RECORD USING SCREEN, RECORD SETTING STEPNO ELSE STOP
ID = RECORD<1>
IF ID = '' THEN PRINT CHAR (12); STOP
READ RECORD FROM INV, ID ELSE RECORD = ""
INPUT RECORD USING SCREEN, RECORD AT STEPNO ELSE NULL
WRITE RECORD ON INV, ID
GO 10
END
```

Because your programmer is not bogged down with the minor details of programming code, he can spend more time on other problems. His efficiency increases, which means greater productivity to you!

SCREENPRO offers these features:

- Simple, dynamic, on-line formatting.
- Direct interface to the data base.
- Simple, single character or word commands.
- Automatic data verification and error checking.

SCREENPRO offers these benefits:

- Quick and easy screen formatting—without programming knowledge.
- Programming code reduced to a minimum.
- Faster and more accurate implementation—decreased implementation costs.
- Greater operator efficiency.

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